

Notice of Allowability

Application No.

10/664,915

Examiner

Carol S. Tsai

Applicant(s)

WHALING ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/13/2006.
2. ☒ The allowed claim(s) is/are 10-14, now renumbered as 1-5.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 10-14 are allowed.

2. The following is an examiner's statement of reasons for allowance:

U.S. Publication 2003/0171897 to Bieda et al. in view of U.S Publication 2003/0182180 to Zarrow and U.S. Patent No. 6,389,331 to Jensen et al. are references closest to the claimed invention. Bieda et al. disclose a product performance integrated database apparatus and method which uniquely enables product performance data to be analyzed, placed in a prioritized initial risk assessment ranking based on initial failure effect risk so as to subject only high risk assessment failures to a root cause and effect analysis to develop a corrective action for the product failure. Zarrow disclose an improved method for certifying that a manufacturing facility is capable of producing quality products of a particular type comprising auditing the manufacturing facility against a process standard and issuing a certification to the process standard if the manufacturing facility passes the audit. Jensen et al. disclose a facilities management system being subdivided into a plurality of subsystems in which the performance of the system is monitored by producing data which denotes a plurality of operational parameters for each of the subsystems and from that data, a global performance index being derived for each subsystem in order to provide an indication of each subsystem's performance. However, Bieda et al. in combination with Zarrow and Jensen et al. do not teach a method for identifying and evaluating hazards associated with a system comprising: a) identifying at least one sub-system of the system to be each evaluated for hazards; b) for each sub-system, identify inherent hazards which if not controlled could lead to or contribute to an unsafe condition of the system; c) for

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each of the inherent hazards, identify one or more single point failures that could result in an occurrence of the inherent hazard or contribute to one of the unsafe conditions', d) for each of the inherent hazards, identifying features of the system that are associated with the inherent hazard or to the at least one unsafe conditions; e) for each of the at least one unsafe conditions, analyzing a potential severity of the unsafe condition and assigning a severity level to the unsafe condition; 9 g) repeating steps (b) to (e) for each sub-group of the system; review the cumulative analyses of the sub-groups to determine if the severity level assigned to any of the unsafe conditions is greater than a predetermined threshold severity level; h) performing an accident scenario review for each of the unsafe conditions having a severity level greater than the predetermined threshold severity level; i) for each of the unsafe conditions having a severity level greater than the predetermined threshold severity level, identifying and assigning as a group the single point failures occurring in one or more of the sub-systems that lead to or contribute to the unsafe condition; j) determining a likelihood of occurrence that of each of failures in the group will occur in a sequence resulting in the unsafe condition; k) determining a cumulative likelihood that the unsafe condition will occur based on the likelihoods that each of said failures will occur in the sequence that result in the unsafe condition; l) if the cumulative likelihood that the unsafe condition will occur is above a predetermined risk threshold level, identify at least one mitigating action to be performed to reduce the likelihood of occurrence or the severity of the unsafe condition; m) for each unsafe condition having a cumulative likelihood of occurrence about the risk threshold level, perform the at least one mitigating action to reduce the likelihood of occurrence of the unsafe condition or to reduce the severity of the unsafe condition; n) for each unsafe condition having a cumulative likelihood of occurrence about the risk threshold

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level, document the unsafe condition and the at least one mitigating action, and h) performing an accident scenario review for each of the unsafe conditions having a severity level greater than the predetermined threshold severity level; i) for each of the unsafe conditions having a severity level greater than the predetermined threshold severity level, identifying and assigning as a group the single point failures occurring in one or more of the sub-systems that lead to or contribute to the unsafe condition; j) determining a likelihood of occurrence that of each of failures in the group will occur in a sequence resulting in the unsafe condition; k) determining a cumulative likelihood that the unsafe condition will occur based on the likelihoods that each of said failures will occur in the sequence that result in the unsafe condition; l) if the cumulative likelihood that the unsafe condition will occur is above a predetermined risk threshold level, identify at least one mitigating action to be performed to reduce the likelihood of occurrence or the severity of the unsafe condition; m) for each unsafe condition having a cumulative likelihood of occurrence about the risk threshold level, perform the at least one mitigating action to reduce the likelihood of occurrence of the unsafe condition or to reduce the severity of the unsafe condition; n) for each unsafe condition having a cumulative likelihood of occurrence about the risk threshold level, document the unsafe condition and the at least one mitigating action, and o) include the documentation of the unsafe condition and the at least one mitigating action in a database of hazards for use in a subsequent method to identify and evaluate hazards in a subsequent system; and including all of the other limitations in the respective independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cswt
February 5, 2007
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CAROL S.W. TSAI
PRIMARY EXAMINER